

On The Theory of the Verb "To Be"

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It seems appropriate to discuss the verb *be* in a seminar on ontology. For of course the very term "ontology" is derived from *ὄν/όντος*, the present participle of the Greek verb *be*. Etymologically speaking, ontology is the theory of being or *what is*. At the same time, it is not entirely clear how far a theory of the verb belongs to linguistics, how far it belongs to philosophy proper. Our topic seems to lie on the borderline between the two disciplines, or in the neutral area where linguistics and philosophy overlap and can scarcely be distinguished from one another. This is generally true for fundamental problems in the study of language. The connection between language and rationality is so close that, if we pursue a linguistic issue deeply enough, we will nearly always come up against its philosophical roots. This is peculiarly true for the theory of *to be*, for in this case the object under discussion, the verb itself, has played a major role in the development of philosophy, not only by providing us with the standard terminology for Being and for Essence (from Latin *esse*), but also by providing us with the linguistic preconditions that make it possible or even natural to form such concepts. Without a verb *to be*, we would be hard put to formulate the concept of Being or the concept of *what there is*. Both historically and linguistically, the philosophical project of ontology seems to depend upon—to have as a necessary condition—the possession of a verb *to be*!

My concern here is neither with the traditional role of *be* in Western metaphysics nor with the general problem of the relation between language and thought. But I shall be at least indirectly concerned with the relation between linguistics and philosophy, since

my topic lies somewhere in the no-man's-land between the two. From the linguistic point of view, the theory of the verb which I propose is a novel one, novel in part because the subject has never been studied in a systematic way, and in part because what I have to say differs from the traditional doctrine on *be* in comparative grammar. But the curious fact is that what I might claim as the central novelty in my theory, regarded as a thesis in linguistics, happens to have a close analogue in philosophy which is by no means new and is in fact now generally taken for granted. My linguistic thesis is that the predicative use of *be* as copula is primary and fundamental, whereas the noncopulative uses, including the existential use, are secondary and in a sense parasitic on the predicative use of the verb. (That is, I take the copula *is* as the basic function of *be*, whereas the existential use—as in "I think therefore I am"—is to be regarded as secondary and dependent on the copula verb.) The philosophical analogue which I have in mind is the view prefigured in Kant's claim that existence is not an ordinary predicate and more fully worked out in Frege's doctrine that existence is a second-order concept, a concept of concepts or function of functions, and not a first-order concept which applies directly to individuals. This Fregean view is incorporated into the symbolism of modern logic where existence is normally represented by a quantifier, that is to say, by a kind of sentence-operator, and not by a first-order predicate. An interesting question which I want to raise, but cannot fully discuss, is: What connection is there between this philosophical view of the relation between predication and existence (as embodied in Frege-Russell logic) and the linguistic thesis concerning the predicative and existential roles of *be* which I shall defend? I am sure that there must be some connection, but I would like to make clear from the outset that the connection cannot be a simple or direct one. My theory of the verb *be* was not conceived as a philosophic doctrine concerning the relation between predication and existence. I have worked out my view on the basis of a detailed study of the actual usage of the verb in ancient Greek.¹ I would like to think of this as a theory in empirical linguistics, designed to clarify and interpret the mass of available data concerning a particular verb in the Indo-European family of languages. (However, because of the borderline nature of the subject matter, the linguist may be unwilling to recognize my theory as belonging within this domain. To some linguists I will appear to be discussing philosophical matters, whereas to some philosophers, the issue will seem "merely empirical." See my Afterthought on method at the end of this paper.) Although my detailed work has been

¹ *The Verb "be" in Ancient Greek*, Foundations of Language Supplementary Series, Volume 16 (Dordrecht: Reidel, forthcoming).

on ancient Greek, most of the fundamental features seem to be common to the cognate verbs derived from the root **es* of *is* in other Indo-European languages, particularly in the archaic stage of these languages, but also in their modern form; and I shall, as far as possible, illustrate the different uses by examples from modern English.

By a theory of the verb *be* I mean a conceptual framework that permits us, first, to describe and distinguish the various uses of *be* (or *is*) in Indo-European, and, second, to relate these uses to one another in an intelligible way, so that we can make some sense of the fact that a single linguistic sign has been employed for such a diversity of functions. Thus the theory may be explanatory, but not in any very strict sense of "explanation." The function of the theory is essentially conceptual: to introduce order and clarity into a mass of empirical data. The data include the occurrences of different forms of *be* (or *είναι* in Greek) in a vast number of sentences. The first conceptual task is to sort these occurrences out into different types or classes, which I call different "uses" of *be*. For each class I attempt to give a systematic definition in formal or syntactic terms. The next task is to see how these different uses belong together—why does a single verb serve as copula and as expression of existence, for example? Thus the theory I aim at must provide, first, a descriptive analysis and classification of the facts according to the principles of modern syntax, and, second, it should provide some "explanatory" synthesis which makes these facts intelligible by unifying them in some way. My underlying conviction, which I would like to make plausible, is that the diversity of uses for the verb *be* in Indo-European languages is more than a historical accident, that it represents a cluster of concepts whose interconnections are of permanent importance. In a sense, I would like to defend the verb against some of its critics. But on this occasion I can do little more than sketch the theory, and my defense of the verb will be largely implicit.

We cannot ignore the fact that, after so many centuries of glory, the verb *be* has recently had a bad press. Philosophers since J. S. Mill have complained that, by combining so many different functions—and above all, by expressing existence and predication with the same word *is*—the use of this verb in philosophy had led to serious error and systematic confusion. Linguists, on the other hand, have pointed out that the verb *be* is, after all, a local peculiarity of Indo-European and of no general importance in linguistics. More recently it has been suggested (by Emmon Bach and others) that the verb *be* is a phenomenon of surface structure only, even in English.² It

² See Emmon Bach, "Have and be in English Syntax," *Language*, Vol. 43 (1967), pp. 462-85; and John Lyons, *Introduction to Theoretical Linguistics* (Cambridge: Cambridge University Press, 1968), pp. 322 f., 388.

would seem that philosophical analysis, linguistic relativism, and depth grammar have formed a kind of conspiracy to undermine the traditional status of our verb as the expression for fundamental insights into the nature of things. To quote a recent linguist, speaking of the absence of the copula in Chinese: "There is no concept of Being which languages are well or ill equipped to present; the functions of 'to be' [as verb of predication in Indo-European] depend upon a grammatical rule for the formation of the sentence [namely, that every sentence should have a verb], and it would be merely a coincidence if one found anything resembling it in a language without this rule."³

My position on these matters is that of a moderate conservative. We must admit that the logical distinctions between an *is* of existence, an *is* of predication, and an *is* of identity imply that there can be no unitary concept of Being in the traditional sense (though the tradition is not as naïve on this point as its critics often suppose). And we must recognize the fact that the verb *be* (or **es-*) is a peculiarity of Indo-European. But it does not follow that the traditional doctrines and concepts built upon this Indo-European verb are a jumble of confusion or a projection onto the world of the surface grammar of Greek and Latin. Although the diversity of functions serviced by this single verb may be regarded as a historical accident, I want to suggest that it was, philosophically speaking, a happy accident and that the proper subject matter of ontology was in a sense delivered ready-made to the Greek philosophers in the system of uses of their verb. I want to claim that an adequate theory of *be* will justify an essential and not merely etymological connection between the Indo-European verb and the philosophical project of ontology. But in order to articulate this claim, we must first have a theory of the verb.

We cannot consider all uses of the verb here. I omit, for example, the archaic use of *be* to express possession, a use almost extinct in English but partially preserved in French, where *Ce livre est à moi* ("This book belongs to me") echoes the old Indo-European idiom for possession. Early Indo-European had no verb *to have*, and the idea of *I have* was originally expressed as *est mihi ἔστι μοι* "It is for me." Of considerable linguistic importance, this possessive use of *be* has exercised no great influence on the philosophical career of the verb. For entirely different reasons, I shall have nothing to say about the *is* of identity. This use is of great importance for philosophy but it has no precise linguistic significance. I mean that neither in Indo-European nor, as far as I can tell, in any other natural language does the language

³ A. C. Graham, "Being in Classical Chinese," *The Verb 'be' and Its Synonyms*, Part I (Dordrecht: Reidel, 1967), p. 15.

itself make a formal distinction between a statement of identity and an ordinary predication. From the linguistic point of view, an identity statement is a logically (but not linguistically) special case of predication. We might say that "A is B" is a statement of identity just in case "A is B" and "B is A" are both true. Or, since statements of identity may be false, we may say that "A is B" is an identity sentence when the speaker who asserts "A is B" would also assert "B is A." But this logically special feature is, as a rule, not reflected in the *form* of the sentence. Why natural languages do not regularly mark off predications of identity by a distinct sentence form is itself an interesting question, but not one with which I shall deal. It has more bearing on a theory of the definite article than on a theory of the verb *be*.

Our discussion, then, will be limited to three philosophically central and linguistically distinct uses of *be*: the copula or predicative use, the existential, and what I call the veridical use. I want to suggest that the use of a single verb for these three roles reflects certain deep conceptual connections between the function of predication, the notion of existence, and the notion of truth. But first we must define these three uses of *be*. Now my methodological assumption is that, if we are not going to be satisfied with vague and intuitive notions of "use," to define a distinct use of the verb means to describe a sentence form or syntactic structure in which the verb occurs. But this means that we must have a rather precise syntax at our disposal.

The syntax I make use of is the transformational theory of Zellig Harris, which is closely related to but formally quite different from the generative grammars of Noam Chomsky and his school. In this transformational theory there are no branching tree diagrams and no rewrite rules. The theory consists, on the one hand, of a list of kernel or elementary sentence forms for English and, on the other hand, of a set of transformations defined either as regular relations between sentence forms or as operations (or rules) by which one acceptable sentence form can be derived from another equally acceptable sentence form. We can describe this theory as a kind of axiomatic system designed to derive all English sentences from a small number of elementary forms by means of specified transformations. The elementary sentence forms are the axioms. The transformations are the rules of derivation. Thus the familiar active-passive relation between *John loves Mary* and *Mary is loved by John* is a transformation for Harris as for Chomsky. The passive transformation is the relation between these two, or the rule for forming the second from the first. But Harris also admits a more radical type of transformation where the transform is not a paraphrase of its source. For example, there is a set of transformations which take

a sentence as operand and which add an epistemic or intentional concept as operator. The concept of truth like the concept of knowledge is introduced in this way. In Harris' theory, the sentence *It is true that John loves Mary* is a transform of *John loves Mary*; and the sentence *I know that John loves Mary* is a transform of this same kernel sentence, *John loves Mary*. Such transformational operators, which take an embedded sentence or *that* clause as their object or subject, are known as sentence-operators. As we shall see, both the veridical and the most typical existential uses of *be* are of this general form; both are sentence-operators.

We must now define the copula, and the existential and veridical uses.

For a definition of the copula we consider the kernel or elementary sentences of English. (I give Harris' theory in my own, somewhat simplified version.) Elementary sentence forms can be grouped into two classes, symbolized as $NV\Omega$ and $N\text{ is } \Phi$, where N represents an elementary or first-order noun (roughly, a "concrete" noun), V represents a standard verb, and Ω represents the (direct or indirect) object of the verb. Ω may be a noun or a phrase, but it may also be empty (where the verb takes no object) or it may be double (where the verb takes two objects). Thus *John sleeps*, *John loves Mary*, *John speaks to Mary*, and *John gives Mary a book* represent four subtypes of $NV\Omega$ which differ only in the form of Ω . Somewhat similarly, the elementary varieties of the copula sentence $N\text{ is } \Phi$ differ according to the form of the "predicate," Φ . We can recognize three principal subtypes of the copula, depending upon whether Φ is an adjective, a noun, or a prepositional phrase: *John is tall*, *John is a man*, *John is at the office*. We can define the elementary copula as the verb *be* in sentences of this form, $N\text{ is } \Phi$, where Φ ranges over adjectives, nouns, and prepositional phrases. (We could also define second-order and other types of copula by analogy with this form, but for our purposes the elementary copula will suffice.)

Overlooking the distinction between predicate nouns and adjectives, we can focus on the two major subclasses of elementary copula: the nominal copula (where the predicate Φ is a noun or adjective) and the locative or quasi locative copula (where Φ is a prepositional phrase). (By quasi locatives I mean those prepositional phrases where the locative connotation of the preposition is at best metaphorical, as in *John is in a hurry* or *John is at a loss*. Such quasi locative sentences are probably all nonelementary uses of the copula, hence we can omit them here. But, in any case, there is a clear structural analogy between these sentences and properly locative uses of the same prepositions: *John is in a boat*; *John is at a beach*.)

Thus two basic uses of the copula are (1) to assign a predicate noun or adjective to a concrete subject: *John is a student*; *John is sad*, and (2) to locate a subject in a given place: *John is at home*, *John is in Chicago*. In the traditional theory of *be*, the locative copula was strangely ignored. In some recent discussions it has been emphasized, particularly by John Lyons, who has called attention to the systematic connections between expressions for location, possession, and existence in many languages. In English, one obvious connection between locative and existential forms is suggested by the degenerate local adverb *there* which occurs in the existential phrase, *there is*. The locative role of *be* in Indo-European is a topic on which there would be much to say.⁴ But we must turn to the two principal non-copulative uses: the existential and veridical. These are both noncopulative insofar as they do not conform to the pattern $N\text{ is } \Phi$.

It is difficult to give a formal definition of the existential use, since this is primarily a semantic or lexical notion. In ancient Greek I have found five or six distinct sentence types where *be* would intuitively be said to have existential force. There are parallels to these types in English, but the formal situation is different for us because the existential idea is nearly always expressed in English by the special locution *there is* or by the separate verb *to exist*. In early Indo-European including classic Greek, there was no verb *to exist*, and all existential sentences are formed by the ordinary *is*. In Greek *The gods exist* or *There is no Zeus* is expressed literally as *The gods are* and *Zeus is not*: *εἰσι θεοί*, *οὐκ ἔστι Ζεὺς*. The philosopher may or may not be surprised to learn that such typically existential sentences—what I call here "pure existentials"—which assert or deny the existence of a definite individual or a definite sort of individual, do not occur in the earliest texts. Thus there are no such sentences in Homer. The earliest pure existentials attested in Greece are from the period of the Sophists, and they are nearly always concerned with the existence of the gods. Existential sentences of the form $N\text{ is}$ or $N\text{ is not}$ arise almost as a technical use which seems to be the result of philosophic speculation and theological controversy. In its earliest existential uses, the verb *be* serves not to assert existence in general or absolutely but to provide a subject for further predication, within a definite context.

As a representative of this nontechnical, prephilosophic use of *be* with existential force bound to a specific context of predication, I take

⁴In particular, it turns out that the intuitive force of *be* in the existential uses is closely connected with its locative function of locating the subject in a region or group ("in a corner of Argos," among the Trojans"). This locative background of the existential use of *be*, which is reflected in modern idioms like "*there is*" (compare Italian "*ci sono*" French "*il y a*"), is particularly clear in early Greek, where an existential use of *ἔστι* can often be translated "is present," "is found (there)."

the complex sentence form *There is someone (no one) who . . .*. For example, *There is someone who has betrayed me*; *There is no one who can fight against the gods*. Notice that in this use the existential verb is almost superfluous; the sentence with *be* is an expressive or emphatic variant on a sentence with indefinite subject and with ordinary verb: *Someone has betrayed me*; *No one can fight against the gods*. In the existential variant, *there is* serves as a sentence operator which emphatically asserts or denies a subject for the indefinite sentence, transformed as a relative clause: *There is someone who . . .* I regard this as the typical function of *be* as existential verb: to present or provide (and in the negative form, to deny) a subject for further predication. The resulting sentence form bears an obvious analogy to existential quantification in logic ($\exists x$) Fx . (I will return to the existential in a moment.)

Finally, we have the veridical use. By this I mean the sentences in which *be* has the value "is true" or "is the case." The most typical ancient specimens are of the form *It is (so)* or *It is as you say*. Familiar English examples are provided by the rather archaic expression *So be it!* and by the not-so-archaic *Tell it like it is*. Notice that in this use the understood or underlying subject, represented in surface structure by *it*, is never a concrete noun or first-order nominal but a sentential subject, that is to say, a syntactical structure equivalent to a *that* clause. For example, "You ask *that your wishes be granted*: so be it!" Or "You claim *that he loves her*: it is as you say." In these examples the *it* refers back to the *that* clause. Here again, then, the verb *be* has the syntactical status of a sentence-operator, since its underlying "subject"—the antecedent of *it*—is sentential in form. The structure of this veridical operator is quite different from the existential type just illustrated (*there is someone who . . .*); but both uses are clearly nonelementary or second order, in terms of transformational syntax. And both the existential and the veridical uses are noncopulative, since neither takes a predicate expression as the copula does in sentences of the form N is Φ .

So much by way of a mini-description of the three central uses of *be*: as copula, as existential verb, and as veridical locution. Both in terms of the verb's intuitive "meaning" (or, for the copula, lack of meaning) and in the syntactical form of the sentence, these three uses are quite distinct. We now ask how these uses are related to one another: How is it that these three different functions are performed in Indo-European by a single verb?

The traditional theory of *be* ignores the veridical use (or assimilates it to the existential) and relates the existential and the copula verb as follows. (This is the doctrine of the standard comparative grammars, going back to Brugmann and Meillet.) The verb *be* (or

**es-*) was originally a verb like other verbs, with concrete meaning. The original meaning was *to exist*, or perhaps something even more concrete like *to be present* or *to be alive*. Predicate nouns and adjectives were originally expressed without any verb, in the so-called "nominal sentence" familiar from Russian and many other languages: *John is wise* was simply *John/wise*; *John is a man* was *John/(a) man*, and so forth. But in the course of time it became useful to introduce a verb into the nominal sentence, in order to express the tense, person, mood, and other modalities carried by the finite verb in Indo-European. Hence the verb *be* (meaning *exist*) was introduced into the nominal sentence, where it gradually lost its original meaning and degenerated into an "empty" verb or "mere copula," a syntactic device which serves to satisfy the requirement that every sentence must contain a verb.

This historical-sounding theory is enshrined in all the textbooks, but there is precious little evidence in its favor. The notion of an Indo-European language without a copula verb is a pure figment of the imagination. The copula uses of *be* are predominant from the earliest texts: the copula represents something like 80 percent of all uses of *be* in Homer, for example. The notion that the existential uses are somehow more fundamental or more primitive than the copula seems to be a mere prejudice—a prejudice based, perhaps, upon a mistaken philosophical view of existence as an ordinary predicate. Hence I propose a modest Copernican revolution: to reinstate the copula at the center of the system of uses of the verb. Instead of "deriving" the copula construction chronologically from some earlier state of the language without this construction, I propose to take the copula uses as fundamental and primitive for the verb *be* in Indo-European. In some loose sense of the word "derive," I propose that we derive the existential and veridical uses from the copula. This sense of "derive" must be very loose, however, for I do *not* mean that the copula uses are older—for that also there is no evidence. (Nor do I mean that existential and veridical sentences are transformationally or syntactically derived from copula uses of *be*.) I mean simply that if we take the copula use as "original," we can see why the *same* verb should be used to express existence for a subject and also to express truth or being-so for a sentential content or alleged fact.

In order to see these connections we must have a more adequate view of the copula function of *be*. Linguists often speak of the copula as a dummy verb, as a merely formal "bearer" of the verbal marks of tense, person, and the like. There is some truth in this view, but it obscures as much as it reveals. What it reveals is that the copula

be does not function like other verbs which provide specific information content like *runs*, *eates*, *loves*. In the copula sentence the informative concept is provided by the predicate word or phrase, not by the verb. In *John is tall*, the essential information is provided by *tall*, whereas *is* might be omitted without loss, as in the nominal sentence. But as Abelard (who developed the classic doctrine of the copula) clearly saw, what the copula does is to separate out a function that is less clearly visible in the case of other verbs just because it is combined with the expression of a concrete concept or meaning, like *running*, *eating*, *sleeping*.⁵ To this extent, the copula is the finite verb par excellence because it separates out the function of the finite verb as such from the concrete meaning or content which is expressed by other verbs (and by predicate nouns and adjectives). It is this idea of copula as verb par excellence which was formulated in the traditional designation of the copula as a sign of predication. I want to develop this idea by describing the copula as a sign of predication at three distinct levels, of increasing generality. The first level is that of the verb *be* as it is actually used in Indo-European. The second level is that of the philosophical rewriting of all subject-predicate sentences in the form *S is P*, as in traditional logic. At the third level the verb *be* is used in complete abstraction from subject-predicate form, as a general sign for declarative sentencehood or for the corresponding truth claim or alleged fact, regardless of the form of the sentence. Let us take these three senses of "sign of predication" in the order of increasing generality or increasing theoretical abstraction.

1. In its actual use, the copula verb serves not for all subject-predicate sentences but only for those where the predicate is an adjective, a noun, or a nonverbal phrase. This is the use which I have defined by contrasting copula sentences of the form *N is Φ* with ordinary verbal sentences of the form *N V Φ* . In the copula sentence the subject-predicate form is particularly clear, of course. But in this use the copula also serves two functions which are worthy of note. The first is peculiar to the Indo-European verb **es-*. The second is common to all finite verb forms. The special function of **es-* (or *is*) is the expression of a static or stative aspect, in contrast to the kinetic or mutative aspect expressed by *becomes*. The contrast of *is such-and-such* to *becomes such-and-such* in nominal predication is exactly parallel to the contrast of *is somewhere* to *goes somewhere* or *arrives somewhere* in locative sentences. That is to say, the copula

⁵ For Abelard's theory of the copula see his *Logica "Ingredientibus"*, ed. Geyer (1917-1927), pp. 351 f., 352, 359, 362, and *Dialectica*, ed. De Rijk (1956), pp. 134-38, 161.

is has a static value in nominal predication just as it does in statements of place. This essentially static aspect of *is* deserves a prominent place in any full theory of the verb. But we must pass on here to the more general function of *is*, which it shares with other finite verbs. This is the syntactic mark of sentencehood, and above all of declarative sentencehood, with the corresponding semantic value of a truth claim. To understand the function of the copula as sign of predication, we must consider it both from the syntactic and from the semantic points of view.

I take it for granted that the declarative sentence is the basic form of sentencehood, not only for logical but also for linguistic analysis. The theory of questions, commands, conditions, and other modalities must be built up on the basis of a theory of declarative sentences, as used in statements or assertions. In this sense, the declarative sentence is the primitive sentential form. This means that in Indo-European the indicative is the primitive mood and that the basic use of indicative sentences is for making statements. I shall speak of the declarative sentence form as bearing a truth claim. This locution can be regarded as a short-hand way of saying that the declarative sentence is the form provided by the language as the typical instrument for making statements.

We consider, then, declarative sentences such as *Socrates is wise* or *The cat is on the mat*. The assertion or truth claim is, of course, a function of the whole sentence and not of the verb alone. But there is a clear sense in which the finite verb is the formal mark of sentencehood ("every sentence must have a verb"), and the indicative verb is the mark of declarative sentencehood or truth claim. (Strictly speaking, we would have to mention the declarative intonation here, to rule out questions and unasserted uses of the indicative. But I ignore these complications.) The special declarative role of the verb can be brought out if we emphasize it in pronunciation: "*Socrates is wise*," or "*The cat is on the mat*." Because the copula as a finite verb carries the formal mark of declarative sentencehood, emphasis on the copula expresses a strengthened assertion of the sentence as a whole. For other verbs, similar emphasis requires a periphrase of the verb with *do*: "*John does love Mary*," or "*He did go, after all*." The truth claim of the sentence as a whole is thus associated formally with the finite verb in general, and with the copula in particular.

Underneath the traditional description of the copula as sign of predication, then, lie these two connected functions: the syntactic mark of sentencehood and the semantic mark of truth claim. It is true that one can devise a generative grammar of English in which

the copula disappears from deep structure. But then the deep structure must contain other formal indications for declarative sentencehood.

2. The second sense in which *be* serves as a sign of predication is more abstract and philosophical. It is based upon the insight that every finite verb form can be rewritten periphrastically as a combination of *is* and participle: *John runs* as *John is running*, *John loves Mary* as *John is loving Mary*, and so on. This canonical rewriting is, of course, not always as idiomatic as the original sentence, or it would not normally be used in the same context. But that is not the point. The point is that such rewriting provides a uniform schema for all subject-predicate or noun-phrase-verb-phrase sentences in the language, and that means for nearly all basic or elementary sentences. The philosophical importance of the copula from Aristotle to the *Logic* of Port Royal rests precisely upon this uniform rewriting of sentences in the form *S is P*. And although the copula is no longer so conspicuous in modern logic, essentially the same function is served by the canonical rewriting of sentences in the form *Fa* or *Fx*, to reveal their predicative structure. It is no accident that *Fa* is commonly read as "*a is F*." And if *this* is what we mean by the verb *be* as sign of predication, it should be clear that *be* cannot be eliminated from deep structure so long as deep structure is to retain any analogy with the forms of predicate logic. There must be *something* in the structure of sentences to correspond with the form *Fx*, and hence with *x is F* or *S is P*. In this second sense, then, *be* represents the form of predication in general.

3. Finally, there is a sense in which the verb *be* can serve as sign of predication for any sentence, whether or not it is of subject-predicate (or function-argument) form. Consider the impersonal sentence *It is raining*, which in many languages would be rendered by a finite verb alone, without any dummy-subject *it*: *pluit* in Latin, *piove* in Italian, for example. Let us assume that these are not subject-predicate sentences. (An indication of this is that it scarcely makes sense to ask "What is raining?") Now if you say "It rained yesterday," I may answer "It is as you say," where "it is" affirms the sentential content which you asserted. In this veridical use of *is* we no longer have the copula, and we have no predication in the ordinary sense. We have only the sign of a sentential form (namely, the form which underlies it as subject of *is*), and the assertion or confirmation of a truth claim. This veridical use of *is*, in *It is so*, or *tell it like it is* is a kind of generalization of its role as mark of declarative sentencehood in copula sentences. Because of this syntactic and semantic continuity with the role of the copula, I would stretch the term "sign of predication" to apply to this generalized

veridical use of *is* to express the content of any sentence whatsoever, including sentences which may not be of subject-predicate form.

We can now see why the verb *be*, whose primary use is that of the copula, is also employed as veridical verb for the assertion of any arbitrary sentence or for its validation in the corresponding fact. In a veridical sentence, for example *Tell it like it is*, the verb *is* serves explicitly to express the fact or real situation. But this is what the copula implicitly claims to do in all declarative sentences. The veridical use of *be* simply makes general and explicit the truth claim which is implicit and particularized in every elementary use of the copula. The veridical use is, of course, second order, since it takes an underlying *that* clause or sentential content as its subject. It thus serves to separate off the truth claim (or the purported positive truth value) as a distinct idea, in order to talk about it, or *thematize* it in Husserl's sense. In the elementary copula use the truth claim is implicit in the declarative form of the sentence but closely associated with the finite verb. In the veridical use the verb is abstracted from the copula construction and used as a kind of second-order predicate or sentence operator. Since the copula *is*, for various reasons, figures as the finite verb par excellence, the same verb is naturally used for the general form of sentential truth claim, meaning *It is the case that . . .* or *This is how matters stand*. This is the value of the verb *is* in *Tell it like it is*. Thus the veridical use of *be* abstracts out an essential semantic component of declarative sentences in general, and of copula sentences in particular.

We can give a somewhat similar account of the existential use of *be*. Consider a sentence like *John is wise* or *John is at home*. The copula *is*, as finite verb, bears the mark of sentential truth claim for these subject-predicate sentences. Now one of the truth conditions for such a sentence is, of course, the existence of a subject. Regardless whether we consider *John is wise* as false or as nonsensical on the supposition that John does not exist, clearly *John is wise* is true only if John does exist. The existence of the subject is an essential semantic component, a truth condition or presupposition of the simple declarative sentence as a whole. The verb which is uniquely associated with the truth claim of the sentence can thus be used to express the existence of the subject. This is not only conceptually justified in the sense just suggested (namely, because the existence of the subject is a semantic component of the subject-predicate statement). It is also linguistically natural because of various formal connections between the finite verb and its subject. The Indo-European verb agrees with its subject in person and number. Emphasis on the verb can thus serve to focus attention on the subject, to present it in an emphatic way. At least this is true in an

ancient language like Greek, where placing the verb in the emphatic initial position makes a copula sentence look like an existential: *ἔστι Σωκράτης σοφός*, with the verb first, could be translated either "Socrates is wise" or "There is a wise Socrates." This connection between copula and existential verb is not so obvious in English, where the pre-posed verb must be preceded by the expletive "there."⁶ In Greek, but not in English, a so-called existential use often differs from the copula construction only by the emphatic initial position for the verb: *ἔστι πόλις Ἐφύρη μυχῷ Ἀργεὺς ἱπποβότῳ*, which we must render as "There is a city Ephyre in a corner of Argos." Thus the close connection between copula and existential verb is obscured in English by the special "existential" idiom *there is*.

But we can reveal this connection by a little transformational analysis. *There is a man at the door* is related to the copula sentence *A man is at the door* just as *There came a knight ariding* is related to *A knight came ariding*. That is to say, in modern English, where the declarative word order is relatively fixed, we can bring the verb to the head of the sentence only by some special device such as the unstressed adverb *there*. In *There came a knight ariding*, the word *there* serves only to bring the verb before its subject. And in *There is a man at the door*, *there* serves exactly the same function: to bring the verb to the head of the sentence. Why then, does *there is* seem to us a distinctly existential verb and no longer a mere copula?

The reason lies, I believe, in the typical function of *there is* sentences in ordinary discourse, which is also the typical function of so-called existential uses of *ἔστι* in nonphilosophical Greek. This is: to introduce a subject for subsequent predication. To show that this is so would require consideration of more examples than we have time for. I can only point out that, in most nontechnical uses of the existential verb, the existential form is strictly superfluous, and we could have the same meaning with an ordinary copula. The copula sentence *Ephyre is a city in Argos*, is a good paraphrase equivalent for our "existential" sentence *There is a city Ephyre in Argos*; and either *Socrates is a wise man* or *A man named Socrates is wise* can serve as paraphrase for *There is a wise man named Socrates*. The peculiar feature of these *there is* sentences in English (and of their Greek originals, where we have an initial *ἔστι*) is that they introduce a subject—Socrates, the

⁶It is worth noting that the use of the unstressed adverb "there" (in our modern idiom "there is") is a relatively late addition to the existential verb, going back to the thirteenth century. In earlier English, as in ancient Greek, this existential use was represented by *be* alone. For the introduction of "there" (as a device for bringing the verb before its subject) see Fernand Mossé, *A Handbook of Middle English*, J. A. Walker (tr.) (Baltimore, 1952), p. 128 (§ 174).

city Ephyre—which will be further described or referred to in what follows. As you know, Plato's sentence actually continues: *There is a certain Socrates, a wise man, a student of things aloft and an enquirer into all things under the earth, who makes the weaker argument the stronger.*⁷ We might call this use of *ἔστι* or *there is* the "existential copula," since the *is* here is transformationally derived from the copula. Realistically described, the function of the "existential" verb in such uses is not to assert the existence of Socrates but to *introduce* Socrates as a subject for predication, as a person about whom more is to be said.

The case is slightly different for what I have taken as the typical existential use, in sentences of the form *There is someone (no one) who . . .* Here we do have a full-fledged existential use, since the verb does *not* function as copula. (In transformational terms, this use of *there is* can not be derived from the copula.) Here its function is *only* to present (or in the negative, to deny) a subject for the following predication, spelled out in the relative clause. What I suggest is that the verb *be* can *also* function in this way, to present a subject as such, just because it very often functions as existential copula, to introduce the subject of a copula predication.

We may refer to the uses so far described as "bound" existentials, since they are tied to a specific context of predication. The pure or "free" existential, which is so dear to philosophers—as in *There are gods* or *There is no Zeus*—is more difficult to explain in linguistic terms, but I think it can be seen as a natural development from the typical "bound" existential use in *There is someone who . . .* I believe that here too (in *There are gods*) the verb serves properly to assert or deny a subject for predication—for any and all predication. Hence here too we can see how the predicative verb comes to serve as verb of existence. However, in this use philosophical generality is obtained by the omission of any specific predicates, and as a result the basic predicative connections of the verb are obscured.⁸ We seem to have the assertion of a bare subject or the assertion of

⁷ Plato, *Apology*, 17B6. The other sample is from *Iliad*, VI. 152.

⁸ On my view, the pure or "free" existential use (*εἰσι θεοί* "there are gods") arises from (1) the generalization of the bound existential ("there are gods who . . .") by the deletion of every specific predicate, and (2) the reinforcement of the existential value by the influence of the veridical nuance: the negative *οὐκ εἰσι θεοί* "there are no gods" (which is probably more primitive than the corresponding affirmative and thus represents the original form of the "pure" existential) means or suggests: "There is nothing true of the gods, everything said about them is a pack of lies." The basic linguistic function and flavor of the pure existential seems to me expressed by the following equivalences: (1) "*x is*" = "*x is something*" or, in symbols, $(\exists y)(x \text{ is } y)$, and (2) "*x is not*" = "*x is nothing*" or, in symbols, $\sim(\exists y)(x \text{ is } y)$.

its mere existence. And hence arises the illusion that *existence* is the predicate! But this purely existential use of *be* is a late development in Greek, and should by no means be considered the original use or basic meaning of the verb. The Greeks, at any rate, seem to have remained sufficiently aware of the basic predicative function of the verb as copula so that they were never seriously tempted to regard existence as itself a predicate. They were protected from this error precisely by their use of the same verb for copula and for existence.

This may serve as my defense of the verb *be* against its critics. What I have tried to show is that there is more to the copula than meets the eye. And I have suggested how, once we have an adequate account of *be* as a sign of predication, a theory of the verb based upon the copula construction can give a reasonable account of the veridical and existential uses as well. Because the copula serves as the typical sign of subject-predicate structure (with sentential truth claim), it can also serve to posit a subject as such, that is, to assert the existence of its subject as a basis for predication. And because the copula verb serves as sign of sentencehood and truth claim, it can also express this claim (or its implied validation in *fact*) for any arbitrary sentence. The permanent fascination of the verb *be* for philosophers derives, on the one hand, from its essential connection with the subject-predicate structure of sentences and, on the other hand, from its more general connection with the semantic function of declarative sentences as saying something (true or false) about something in the world. In the ancient veridical use, which is still alive in our idiom *Tell it like it is*, the verb *is* expresses this fundamental semantic or ontological notion underlying descriptive language as such: the notion of *how things stand* or *what is the case*, which supports the concept of truth and makes the communication of information intelligible, the very same notion which philosophers have called "reality" or "the facts" or "the way the world is."

Perhaps we are better off with a separate verb *to exist*. And of course it is convenient to have a distinct terminology for the veridical concepts: *truth*, *fact*, and *reality*. (However, when we want a veridical verb, it is hard to do without "is"!) But as long as ontology is still concerned with the three concepts of predication, existence, and truth, it is not in vain that it derives its name from the Indo-European verb *to be*. And the terminology of being (or *what is* or *what there is*) has this advantage over terms like "exists" or "reality": The terminology of being implicitly connects the concept of existence and what is really there in the world with the notion of predication and the concept of truth for sentences. In this sense the verb *be* still properly serves to mark out the central problems of ontology.

* * *

As a conclusion, I might say a word about the problem raised at the beginning of this paper. Let us assume that I am correct in claiming that the predicative use of *be* is primary and that the existential use of the verb is secondary and in a sense parasitic upon this predicative base. How is this new linguistic insight related to the older and now quite standard philosophic view of existence as a second-order concept which presupposes a first-order pattern of predication—the view that existence is parasitic on predication in the sense that $(\exists x) Fx$ is parasitic on Fx or on Fa ? As I pointed out, my linguistic view was not reached by *applying* the logical analysis of existence to the linguistic data. I began with the traditional assumption that the existential use was primary and only abandoned this view in the face of linguistic evidence—in particular, the evidence that the copula use is overwhelmingly predominant in the oldest texts (and probably in all texts). Still, I am sure that there must be *some* connection between my linguistic "discovery" and the logical account of existence associated with the names of Frege and Russell and embodied in the notation of standard logic. As I see it, there are two ways to explain the connection, both of which have some plausibility. I will call these the Popperian and the Strawsonian account, where it is understood that the proper names are being used metaphorically, to suggest the kind of thing a philosopher like Popper or Strawson *might* say to explain this connection between an older philosophic insight and a new "empirical" thesis in linguistics.

On the Popperian view, the philosophical analysis of existence could stimulate a "conjecture," that is to say, it could suggest an hypothesis to be applied to the empirical data of linguistics and to be tested against these data. Only when the factual evidence is seen to corroborate rather than to falsify this thesis is it acceptable as a theory in the empirical study of language. Such a Popperian account is attractive because it does justice to my conviction that it was only the detailed study of the Greek evidence which persuaded me to give up the traditional assumption that the existential use of *be* was primary. I accept the primacy of the copula use only *because* it is factually predominant and *because* in the actual sentences of ancient Greek, (and to some extent in English sentences with *there is*) I can see the existential use emerging from the copula use, but not vice versa. I was no doubt helped to see this, and to articulate it as a theory, by my previous familiarity with the logical notion of existence as a quantifier or operator on predication.

On the other hand, a Strawsonian (or perhaps a super-Strawsonian) account might well hold that, however I may have come to

see that the existential uses of *be* are linguistically secondary to, and dependent upon, the basic predicative function of the verb, the conceptual relations between existence and predication are such that it *must* be the case that any term which expresses both will first of all and primarily express predication. Now to recast my linguistic "discovery" as the transcendental deduction of an a priori conceptual truth might be going too far, even for a super-Strawsonian. Still, if my thesis is right there is something which makes it right beyond the fact that it introduces order and clarity into the empirical data. As one Hellenist said, in response to my conclusion: "Yes, that is how language is." I for one would be very sceptical of any linguist who claimed to find a natural language with a lexeme whose primitive and basic function was to express the concept of existence. (In this connection, we may note that our own verb *to exist* is derived from a Latin verb meaning *to step out* or *to emerge*.) Although I do not like to talk this way in philosophy, I am inclined to say: It is not really possible to *imagine* a natural language whose basic vocabulary includes a verb which properly and literally means *to exist*. I suspect that it takes philosophy (or philosophically oriented speculation—for example, skeptical doubts about the truth of the traditional accounts of the gods) to discover the need for such a concept. The concept of existence is not only second order; it is philosophically sophisticated. But every language, from the beginning, needs some formal device for predication. Hence when we encounter languages like Indo-European, where a single word serves for predication and existence, we could in a sense know—or reasonably guess—a priori that the predicative use is more basic, that it is not derived from an older existential use. I do not offer this as an *argument* for the truth of my thesis, much less for its a priori truth. I offer it only as a report or perhaps an explanation of my intuitive conviction that this thesis is not just factually correct but that it *must* be right, and that the traditional doctrine that the copula is derived from an existential verb can only be explained by the even more traditional but incoherent view of existence as an ordinary predicate.⁹

I do not apologize for these reflections on the relation between philosophic analysis and empirical linguistics, even though my conclu-

⁹ I should make clear that my conviction here is based upon the special nature of the concept of existence, as the product of philosophical or quasi philosophical speculation, and not merely upon the fact that it is a concept of the second order. The concept of truth is also nonelementary; its expression is syntactically complex and semantically meta-linguistic. But the notion of truth is indispensable even in the most natural language. And in Indo-European the veridical use of *be*, unlike the pure existential use, is attested in the earliest texts and is demonstrably prehistoric.

sions are obviously very imprecise. We stand, after all, on the borderline between philosophy and empirical science, where precision may be particularly difficult to achieve. This does not alter the fact that it is just in these borderline areas that philosophical reflection may be most fruitful and most productive.

AFTERTHOUGHT ON METHOD

I have thought of my account of *be* as a theory in empirical linguistics, whose function is essentially conceptual: to introduce order and clarity into a mass of empirical data. But a friendly critic, who is also a very fine linguist, doubts whether my thesis of the primacy of the copula among the various uses of *be* is clearly enough defined for a linguist to decide (or even to see how to decide) whether or not it has been established. My first inclination is to respond by placing the burden of proof on the opposition: I have given *some* account of the unity of the system taking the copula as my starting point. If anyone dissents, it is up to him to show that a *better* account can be given if we take the existential or some other use as primary. But this response would be evasive, since what is really in question is the force of the notion of "primary" here. Can it be given a clear linguistic sense? In the traditional theory of the verb, although evidence was lacking, the claim was at least clear: The existential use of the verb was said to be historically older. Since my theory does not pretend to be diachronic, what is the significance of speaking of a *primary* use?

I am not sure that I can give an adequate answer to this question. My notion of the copula as primary rests upon the following three considerations: (1) in terms of frequency of occurrence, the copula use is overwhelmingly preponderant from the earliest texts (at least in Greek); (2) in terms of transformational syntax, the copula occurs in elementary sentence forms, the existential and veridical do not; and (3) it is possible to see (as I tried to show) how a verb whose typical function is copulative can *also* be used as existential or as veridical, but not conversely. The third consideration is perhaps the most decisive for my theory, but it raises similar questions: What do I mean by "typical function" and what is the status of the claim that "it is possible to see how"? We are led here into very deep problems in the theory of linguistic meaning, for which I have no general solutions. My account of *be* is intended as a small contribution to the theory of meaning, but it does not constitute such a theory. Until we have one, it seems we must either abandon the study of linguistic meaning or make provisional use of such intuitive notions as primary or typical use and secondary or derivative use, within

a synchronic perspective. Transformational analysis can help to clarify these intuitive notions, but, as far as I can see, it can neither define them adequately nor permit us to dispense with them. Thus we could, for the purpose of my thesis, define a primary use of *be* as one which occurs in elementary sentences. But this definition could not be used to formulate my claim that the existential and veridical uses are *dependent* on the copula, since I do not claim that either of these uses can, in general, be transformationally derived from the copula sentence form. It is true that in some cases the existential and veridical constructions *are* transformationally derivable from the copula. But this is not enough for my purposes. I want to argue more generally for the *unity* of the system of uses for the verb in a sense which I cannot quite make precise. It seems to rely upon a relation of conceptual priority which is roughly of the following sort: the copula use of *be* is conceptually prior to the existential and veridical uses in that it could exist without them but not conversely.

More precision is desirable, and perhaps it can be attained. But the fact that precision is unobtainable (at least for the moment, and for me) does not seem a sufficient reason for abandoning the attempt to see the various uses together, unified by their relation (direct or indirect) to a primary use. If the theory of linguistic meaning is to make progress, we will have to continue to rely upon such *ad hoc* blends of empirical and conceptual considerations, where formal and intuitive principles of description are both employed. If we insist on waiting for an adequate general theory before dealing with particular problems of meaning, we may never get started.

The Content of Existence

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I

The problem of content for existence has a long ancestry. It may be traced back as far as the poem of Parmenides, in which the *estin*—the "exists"—is found to ingest one by one its alleged subjects and its qualitative and quantitative determinations. No room is left for anything whatsoever outside the *estin*. Existence accordingly has a content that is all-embracing. Existence includes in its own intrinsic and undifferentiated unity everything that exists or has existed or will exist or can exist. Outside its own inalienable content there is and can be absolutely nothing.¹

However, in philosophy, as in ordinary life, an extreme position tends to generate its opposite. The evidence offered by Parmenides could be viewed by other thinkers in a way that reversed the black and white as effectively as a negative print in photography. If all the determinations of things are being and are one, Aristotle noted,²

¹ Parmenides, *Fr.* 8.1–49 (DK). Interpretations of Parmenides' poem differ radically, but they agree that it presents a view in which human reasoning shows that all things coalesce in being no matter how much they differ in appearance.

² *Metaph.* B 3,998b22–28. Cf. "But if there is to be a being-itself and a unity-itself, there is much difficulty in seeing how there will be anything besides these,—I mean, how things will be more than one in number. For what is different from being does not exist, so that it necessarily follows, according to the argument of Parmenides, that all things are one and this is being." Ibid. 4,1001a29–b1. Rather, the highest genera are immediately being, without addition of anything else: "But of things which have no matter, either intelligible or perceptible, each is by its nature essentially a kind of unity, as it is essentially a kind of being . . . and so none of these has any reason outside itself for being one, nor for being a kind of being." H 6,1045a36–b5. Explicitly rejected in